California Postsecondary Education Commission

Improving Teacher Quality State Grants Program

Project Description

Project Title	Mathematics Understanding Learning and Teaching (MULT) Project
Grant Amount: $974,959	Grant Period: October 1, 2007 - September 30, 2011
Grade Level: K-2	Subject Matter: Mathematics
Institute of Higher Education	❑ California State University, Fresno
Local Education Agency	❑ Riverdale Joint Unified School District
Additional Partners:	❑ Chowchilla Elementary School District, Robinson Elementary in Fresno Unified, Laton Unified
Need for Project/ Population To Be Served:	Fresno Unified (urban), Riverdale Joint Unified, Laton Unified and Chowchilla Elementary Unified School Districts (rural) were selected based on an analysis of student performance on the CST. This analysis revealed a dramatic decline in mathematics proficiency as students progressed through the grade levels. This may be due to the lack of foundational knowledge and conceptual understanding of mathematics developed in earlier grade levels. These schools are considered high need with the number of children in poverty near 30%.
Project Goals:	1. Provide a coherent and comprehensive program that empowers teachers to make informed instructional decisions based on children's thinking; 2. Strengthen children's conceptual understanding of mathematics; 3. Establish a school culture that is collegial and supportive among and between teachers, school administrators and staff, and the local community; 4. Conduct meaningful research that adds to the knowledge base of both Cognitively Guided Instruction (CGI) and Lesson Study instructional strategies; 5. Disseminate findings broadly
Summary of Activities:	The primary activities include professional development based in Cognitively Guided Instruction (CGI) and Japanese Lesson Study. During each year of the project, teachers will participate in five Saturday sessions which will address making instruction decisions based on children's mathematical thinking. One Saturday each year will include a guest speaker who has done research in CGI or Lesson Study. Additionally there will be 2 school site meetings each month and 2 days each semester when lesson study teams will teach, observe and revise their lesson study lessons. Summer activities will include attending related conferences and summer institutes focused on Lesson Study and mathematics content.
Outcomes Expected:	❑ Teachers will have a deeper knowledge about the development of children's mathematical thinking as shown by an increase in the use of alternative pedagogical approaches and instructional strategies to guide mathematics instruction. ❑ Teachers will demonstrate a significant increase in the percentage of correct answers on a mathematics content assessment given twice each school year. ❑ Teacher attitudes and beliefs about mathematics instruction will become more positive over time. ❑ Students will use an increased number of strategies to complete mathematical tasks; demonstrate significantly higher achievement scores on state (CST) and local standardized mathematics assessments as compared to a matched control group of student

Teachers Served	50	Students Served	3000

Project Website: http://www.csufresno.edu/sjvmp/opportunities/partnerships

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